

WORLD CUSTOMS ORGANIZATION ORGANISATION MONDIALE DES DOUANES

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SCIENTIFIC SUB-COMMITTEE

42.763 E

O. Eng.

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PROPOSED NEW SUBHEADING FOR "GAS CONDENSATES" IN HEADING 27.09

(Item II.10 on Agenda)

Reference documents:

42.241 (RSC/18) 42.500, Annex B/9 (RSC/18 - Report)

I. BACKGROUND

- 1. At its 18th Session (October 1998), the Harmonized System Review Sub-Committee examined a proposal by the Chinese Administration for the creation of a new subheading for "gas condensates" under heading 27.09. Several delegates supported the proposal, because the product was increasing in importance in international trade. However, there were concerns about how to describe the products in question and how to distinguish them from similar products falling in heading 27.10.
- 2. The Review Sub-Committee agreed to a suggestion from the EC Delegate to describe the product as "natural gas condensates" since it was derived from natural sources. After discussion, the Review Sub-Committee decided to refer the matter to the Scientific Sub-Committee for advice on the following points:
 - (a) appropriate definition or description for "natural gas condensates" and
 - (b) how the above product could be distinguished from similar synthetic products of heading 27.10.
- 3. As noted above, these questions arose from the Chinese proposal to create a separate subheading for these products. In this connection China provided certain technical information concerning "natural gas condensates". This information is excerpted below.

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II. NOTE FROM CHINA

- 4. "Gas condensate is a common and important chemical product. Generally, it has trace amounts of or no unsaturated components. It seldom cokes during the oil rendering process, and so is a desirable feedstock for ethylene production. More and more gas condensates are now used in oil-cracking plants.
- 5. Gas condensates are obtained from mining condensate deposits. Normally they are stored deep underground and maintained in a state of high temperature (e.g., 60 °C) and high pressure (e.g., 100 atmospheres). When they are extracted, they are throttled and oils are condensed out. These products are so-called gas condensates. Depending upon the operating conditions, the quantity and types of components vary widely.
- 6. The main components of gas condensates are alkanes, so they cannot have a high octane value and thus are not suitable for use as gasoline. However, they can sometimes be used as engine fuel, if the engines are suitably adapted to burn them. Large amounts of gas condensates are used as feedstocks in oil refinery plants to produce ethylene through the cracking process or to yield gasoline through reformation or isomerization.
- 7. A typical sample of gas condensate has the following content and distillation characteristics:

Components	Percent by weight
C ₄ hydrocarbons	2.26
C ₅ hydrocarbons	8.16
C ₆ hydrocarbons	12.47
C ₇ hydrocarbons	15.28
C ₈ hydrocarbons	13.70
C ₉ hydrocarbons	15.28
C ₁₀ hydrocarbons	4.08
C ₁₁ hydrocarbons	1.67
C ₁₂ hydrocarbons	7.36
C ₁₅ hydrocarbons	11.82
C ₁₆ hydrocarbons	2.92
C ₁₉ hydrocarbons	0.09
C ₂₀ hydrocarbons	4.87
C ₂₂ hydrocarbons	0.05

Temperature (°C)	Yield (wt %)	Cumulative yield (wt %)
60	19	19
80	12	31
100	14	45
120	9	54
140	9	63
160	7	70
180	5	75
200	5	80
220	4	84
240	4	88
260	3	91
280	2	93
300	3	96
340	2	98
340+	2	100

8. The appearance of gas condensates is much different from other crude oils, though they are all natural products. In the dictionary, crude oil can be described as "dark-brown or blue-brown colour, very sticky at room temperature". But gas condensates normally are clear or transparent liquids and sometimes are slightly yellow or coloured. In most cases, gas condensates are associated with the production of natural gas. They are obtained by a throttling process, but the main purpose of the process is to separate the heavier hydrocarbons out in order to get the dry gas (methane being the main component)."

III. NOTE FROM THE EC

- 9. Further, in this connection, the Secretariat received a note from the EC on 26 October 1998. The EC Note is excerpted below.
- 10. "I am pleased to provide you with the Explanatory Notes to the EC Combined Nomenclature for subheading 2709 0010 and with EC import data for the last three years.

2709 00 10 Natural gas condensates

This subheading includes crude oils obtained from the stabilization, immediately on extraction, of natural gas. This operation consists of extracting the condensable hydrocarbons contained in the 'wet' natural gas, mainly by cooling and depressurization.

(Condensats de gaz naturel

Relèvent de cette sous-position les huiles brutes obtenues au cours des opérations de stabilisation du gaz naturel en provenance directe des gisements. Cette opération consiste à extraire du gaz naturel humide, essentiellement par refroidissement et dépressurisation les hydrocarbures condensables.)

EC imports under Combined Nomenclature subheading 2709 0010

	Quantity (1000 kg)	Value (1000 ECU)
1995	9,108,201.8	1,108,421.65
1996	9,225,281.1	1,316,370.46
1997	8,840,811.4	1,397,549.15

IV. SECRETARIAT COMMENTS

- 11. As indicated above, gas condensates are obtained as a by-product in the extraction of natural gas (consisting mainly of methane) from underground wells. According to the information provided by China, it consists mainly of alkanes obtained by segregating the heavier hydrocarbons in natural gas. The Secretariat, however, has no details of the "throttling" process mentioned in paragraph 8 above.
- 12. Regarding the definition or description of natural gas condensates, the Secretariat feels that the Explanatory Note to the EC Combined Nomenclature can be used as a basis therefor. The Secretariat also feels that since this Note contains information only on the manufacturing process, it would be useful to add further information on the composition and characteristics of the products, so as to enable HS users to distinguish them from similar products of heading 27.10. The Chinese Administration has given technical information on the composition and characteristics of gas condensates. Based on the Note from the EC and the information from the Chinese Administration, the Secretariat wishes to put forward the following outline of the definition or description of natural gas condensates as a basis for discussion by the Sub-Committee:

Natural gas condensates

- are crude oils obtained from the stabilization, immediately on extraction, of natural gas. This operation consists of extracting the condensable hydrocarbons contained in the "wet" natural gas, mainly by cooling and depressurization.
- consist of [C4 to C20] hydrocarbons with no unsaturated hydrocarbons or only trace amounts thereof; the main components are [C6 to C9] hydrocarbons.
- are normally clear or transparent liquids, but sometimes are yellowish or coloured.
- approximately [80] % by volume distills at about [200]° C.
- 13. With regard to the criteria for distinguishing between natural gas condensates and similar products of heading 27.10, the Secretariat does not process any precise information. It believes, however, that some Administrations have already had experience in this area. If so such Administrations are requested to provide information on their experience or possible distinguishing criteria. Valid information in this regard could be added to the above definition or description.
- 14. The Sub-Committee is also asked to provide guidance on how to distinguish "natural gas condensates" from similar products of heading 27.10.

V. CONCLUSION

15. The Sub-Committee is invited to give its views on points (a) and (b) at paragraph 2 above.
